

### **FINAL ACTION**

Applicant's amendment of 8-31-07 has been fully considered. The amended claims and argument have not overcome the previous rejections of 112/1<sup>st</sup> paragraph and 102 based on **Jenks et. al.** Thus, said rejections are maintained herein. The amended claims also raise new issues of 112/2<sup>nd</sup>, and thus a new ground of rejection.

Claims 9-11 have been added.

1. Newly submitted claim 10 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: A method of producing anagrelide requires additional search and consideration.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 10 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Thus, only claims 1-9 and 11 are considered herein.

### ***Claim Rejections - 35 USC § 112, First Paragraph***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Scope of Enablement:** Claims 6-8 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of **treating blood platelet aggregation**, does not reasonably provide enablement for a method of treating *myeloproliferative diseases*, and *bronchodilation*. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The rejection is maintained for the reasons stated in the previous office action, and for the ones below:

a. Applicant asserted that the teaching of Pescatore (previously cited) supports the activity of Anagrelide in the treatment of myeloproliferative diseases, and thus supports the claimed method because the instant compound of formula I is a “prodrug that is metabolized in vivo to yield anagrelide.” However, it is not so. Pescatore simply states the pros and cons of using Anagrelide to treat myeloproliferative diseases. First of all, currently the FDA only approves anagrelide in the treatment of ET (or essential thrombocythaemia), which is a disease state related to the platelet numbers. Thus, the main action of anagrelide is more with the treatment of blood platelet aggregation. Secondly, there are serious adverse effects such that anagrelide “**should be used with caution in patient with known or suspected heart disease, and only when the benefits outweigh the risks.**” (see page 544, left column, the paragraph under Table 3). Thus, from said analysis, it can be concluded that anagrelide’s activity is in reducing

blood platelet aggregation, and it must be used with caution. Therefore, its prodrug such as the one claimed herein can only decrease platelet aggregation, and nothing more.

b. Neither Pescatore nor Jenks (US'718) acknowledges anagrelide's activity in bronchodilation. None of the references cited on the IDS supports that. Thus, the state of the art does not enable the use of anagrelide in bronchodilation.

c. The reference of Jenks only links compounds of the instant formula I to blood platelet antiaggregative properties, and nothing else.

d. All in all, from the specification as well as state of the art, the evidence **only** supports the use of anagrelide in treating blood platelet aggregation. Thus, it is maintained that there is **insufficient** enablement to guide a skilled clinician to use compound of the instant formula I in the treatment of myeloproliferative disease and producing bronchodilation.

***Claim Rejections - 35 USC § 112, Second Paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1- 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following reasons apply:

e. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the

steps. See MPEP § 2172.01. The omitted steps are: steps of reacting starting materials, and necessary reagents.

f. Claim 7 is a substantial duplicate of claim 6 since the same method of treatment is recited for the same compound.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by **Jenks et. al.** (US'718—previously cited). In column 9 of US'718, Example 1 describes the process of making the compound of *5,6-Dichloro-3,4-dihydro-2(1H)-iminoquinazoline-3-acetate*, and thus reads on the method of making a compound of formula I with the following substituents:

- i. R<sup>1</sup> is methyl;
- ii. R<sup>2</sup> and R<sup>3</sup> are hydrogen;
- iii. R<sup>4</sup> and R<sup>5</sup> are Cl.

The disclosed compound has blood platelet antiaggregative properties (see column 8,

lines 66 thru column 9, lin 5), and thus reads on the method recited in the instant claim 11. The method of producing a pharmaceutical composition of the instant claim 9 is also inherently embraced.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamthom N. Truong whose telephone number is 571-272-0676. The examiner can normally be reached on M, T and Th (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1623

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/Tamthom N. Truong/

***Tamthom N. Truong***  
***Examiner***  
***Art Unit 1624***

/James O. Wilson/  
Supervisory Patent Examiner  
Art Unit 1624

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11-20-07